the bowels have not been moved since his admission. ℞.—*Olei terebinthinæ* ℥*iss; syrupi* ℥*ii; aquæ menthæ piperitæ* ℥*ii. Misce. Fiat haustus statim sumendus.*

3*d.* Was somewhat intoxicated yesterday after taking the draught, which vomited and purged him freely, the stools being slightly mixed with grumous blood. He feels much better to-day, and eats with an appetite, which he has not done for some time. The spots are darker coloured than on admission, and some new ones have made their appearance, but the sputa are not so bloody.

4*th.* The large blotches are fading, and turning of a yellowish-green colour, while the small spots are disappearing; sputa still tinged with blood; bowels not moved yesterday. ℞.—*Olei terebinthinæ* ℥*iss; olei lini* ℥*i; decocti hordei* ℥*xvi. Fiat enema, et statim adhibeatur.*

5*th.* The patient is improved in every respect, with the exception of the sputa, which are more bloody; the bowels were affected only once by the enema; there is no appearance of blood in what he passed. ℞.—*Olei terebinthinæ* ℥*i; syrupi* ℥*ss; aquæ menthæ piperitæ* ℥*ii. Misce. Fiat haustus, statim sumendus.*

7*th.* Still improving; both large and small spots are gradually disappearing; bowels rather confined. The draught to be repeated, and to have full diet.

9*th.* Feels quite well to-day; none of the small spots to be seen, and the larger blotches much diminished in size; has had no expectoration for the last two days; as the bowels were confined, he was ordered the common castor oil draught.

12*th.* Flanagan was discharged to-day quite cured, having been kept in hospital until all the stains disappeared from the skin.

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17. *On the minute Anatomy and Pathology of Bright's Disease of the Kidney, and on the relation of the renal disease to those diseases of the liver, heart, and arteries, with which it is associated.* By George Johnson, M. D., of King's College. (Read to the Royal Med. & Chirurg. Soc., Nov. 11, 1845.)—The author began by stating that the true nature of Bright's disease was, he believed, to be found in a diseased state of the secretory or epithelium cells which line the urinary tubules. He arrived at this conclusion in the first week of July of the present year, at which period he demonstrated his preparations to Professors Todd and Partridge, and a paper containing the result of his researches was given into the hands of one of the secretaries of this society on the 7th of August.

The author then stated that he had ascertained that the secretory or epithelium cells of the kidney contain naturally a minute quantity of oil in the shape of globules, such as are familiar to microscopical observers. The presence of these globules is constant in the kidney, but its quantity varies considerably within the limits of health.

Bright's disease, the author considers, may be described as primarily and essentially an exaggeration of the fat which exists naturally in small quantities in the epithelium cells of the healthy gland—a fatty degeneration of the kidney analogous to the fatty degeneration of the liver described by Mr. Bowman.* This accumulation of fat in the secretory cells necessarily leads to the engorgement and dilatation of the tubules which they line, and one or more convoluted tubes, thus gorged with fat, and projecting either on the surface of the gland or on the surface of a section, constitutes one of the so-called "granulations of Bright." Some Malpighian bodies were observed to contain no fat, whilst others were gorged with fatty cells, but the author had never observed in these bodies an accumulation sufficient to produce destructive pressure on the Malpighian tuft of capillaries. The frequent connection of albuminous and bloody urine with Bright's disease, and the atrophy of the kidney, are attributed by the author to the mechanical operation of the above-described fatty accumulation. Having alluded to the circulation of the gland, as described by Mr. Bowman, he entered into a minute detail of the reasons which led him to the conclusion that the presence of albumen and blood in the urine is, in this disease, a secondary phenomenon, dependent on the previous morbid changes.

In reference to the atrophy which the kidney so often undergoes in this disease, the author contrasted the well-known peculiarities of the vascular organization of this organ with the very dissimilar arrangements of the vessels and secretory cells

* Lancet, January, 1842.

of the liver, an organ which appears to suffer but little from a similar engorgement in its cells.

In speaking of the stages of this disease, the author observed that he had no reason for believing in the existence of any congestive stage as necessarily preceding the morbid accumulation which he describes. The various forms about which so much has been said and written, he believes to depend in great part, if not entirely, on the rapidity with which the disease advances. In cases of long duration, the kidney is generally found small, contracted, and granular; when the progress of the case has been rapid, the gland is large, smooth and mottled.

The author then dwelt at some length on the frequent coincidence which he had observed of the disease in question with a similar fatty degeneration of the liver, arteries, and valves of the heart.

From the above data the author deduced the important practical conclusion, that these fatty degenerations, so often conjoined, are of constitutional origin, and that they must not be considered and treated as local disorders. He repudiated the notion of Bright's disease having any specific connection with scarlatina, neither did he believe in its alleged relation to acute inflammatory dropsy.

The causes of the disease are, according to the author, essentially debilitating; in large towns the disease is prevalent and fatal, in country districts it is comparatively rare. The disease has been artificially produced by Mr. Simon,* of King's College, in the lower animals, by their continued exposure to depressing influences.

With respect to the microscopical characters of the urine in this disease, the author remarks—1st. That the cylindrical bodies described by Dr. F. Simon are fibrinous casts of the tubes, frequently entangling blood discs, oil globules, or epithelial cells, with fatty contents. 2d. That the presence of much fat in the urine is an alarming symptom. In an advanced stage of the disease, fat rarely abounds, but from experiments on the lower animals, as well as from observation on the human subject, it seems probable that in many cases of chronic ill-health during a period in which no especial attention is directed to the state of the urine, there may be eliminated with this secretion such an excess of fatty matter as would, in reality, mark the first stage of Bright's disease.

On the subject of treatment, the author stated that the obvious indications were—

1. The pursuance of a general tonic regimen in respect of diet, atmosphere, exercise, and medicine.
2. The careful avoidance of all exhausting remedies.
3. To avoid, as articles of food, fat and other highly carbonized materials, &c.
4. To relieve congestion of the gland by strict attention to the functions of the skin and bowels, and by such small blood-lettings as circumstances might demand.

In the debate which followed the reading of this paper, Dr. Todd bore testimony to the accuracy of Dr. Johnson's statements. The admirable and lucid manner in which Dr. Johnson had expounded his views, would, he was sure, be generally acknowledged. He (Dr. Todd) had had the opportunity of watching the progress of the investigation, from its commencement in July to the completion of the paper which had just been read, and he would add, that he had rarely witnessed a more interesting inquiry. Independently of the intrinsic merit of this investigation, he felt that it was peculiarly important, as tending to turn the attention away from questions of mere vascular repletion, or the opposite condition, and to direct it to the real state of the elements of textures—as of the kidney, in the present case—as being those parts in which the seeds of disease are sown. According to the views now brought forward, we must count three stages in Bright's disease:—In the first stage there is a morbid state of the primary and secondary assimilating processes, giving rise to a diseased state of the blood. At this stage there are no very marked signs of disorder readily recognizable by the physician. The second stage is accompanied by a change in the attraction between the gland and certain constituents of blood, so that fat, which in health passes off by

* Observations on the Artificial Productions of Scrofulous Diseases in the Lower Animals, (unpublished.)

the kidney only in small quantity, is now attracted largely to its elementary parts, the epithelium cells, and accumulates in them to overloading. These gorged cells, collecting in the uriniferous tubes, press upon the capillary plexus of their walls, and throw back the blood on the Malpighian tufts, causing congestion or rupture of them. And this is the third stage, in which the urine becomes albuminous, and other signs appear, which have been so well pointed out by the extraordinary clinical research of Dr. Bright and his followers. A strong feeling had been growing up among practical men as to a close connection between this disease and scrofula. The author's statements respecting the artificial production of the disease in animals bore upon this subject; but further research was necessary before the exact nature of the connection could be determined.

Dr. Bright eulogized the paper as showing great industry and perseverance. It was a paper of the greatest interest, and to himself more especially so. He could not vouch for the accuracy of all the conclusions come to by the author, but they bore the appearance of the greatest probability—they appeared like truth. Should future observers confirm the correctness of Dr. Johnson's investigations, a most important vacuum in regard to the disease under discussion would be filled up, and a more rational line of treatment would doubtless be the result.

18. *Chorea and its consequences.*—(*Prov. Med. & Surg. Journ.*, Nov. 12, 1845.)—Dr. Branson, in a paper on this subject read before the Sheffield Medical Society, Oct. 9th, 1845, points out the frequent occurrence of endocarditis (most frequently affecting the mitral valve) during an attack of chorea. The cases, he observed, cannot be classed with those in which disturbance of a distant organ is merely symptomatic of mischief situated in the nervous centres, inasmuch as the affection alluded to is organic and not functional; a mitral murmur existed, and a mitral murmur is never inorganic. It may be urged that continued functional disturbance may lead to organic disease; that the heart, like any other muscle, may be affected with chorea, and that this continued disturbance may at length give rise to inflammatory action. But what evidence is there of functional disturbance prior to the existence of the abnormal bruit? None whatever. There is no irregularity of pulse, no tumultuous action of the heart, in short, the equable character of the circulation is singularly contrasted with the violent jactitations of the patient; besides, the heart may be functionally deranged for a very long period without giving rise to any organic change, and, even supposing such a structural change to occur, hypertrophy, and not mitral mischief, would be the more probable result.

Since the commencement of 1843, Dr. B. has treated twenty-one patients affected with chorea, and of this number nine suffered more or less severely from heart disease. Dr. B. gave the details of several cases, and concluded his paper with the following propositions:—

1st. The necessity which exists for examining the heart constantly in all cases of chorea, since nine out of twenty-one consecutive patients affected with chorea, suffered more or less severely from heart disease.

2d. That disease of the heart is frequently the consequence and not the cause of chorea.

3d. That the heart affection which supervenes in chorea, is often extremely insidious, causing little distress at the time, and only to be detected by a stethoscopic examination, and yet the seeds of future mischief having a direct tendency to shorten life are then and there sown.

4th. That the valvular souffle heard in chorea is the result of inflammatory action, and does not depend, as in anemia, upon an altered condition of the blood—the inorganic murmur in anemia being heard invariably with the first sound, and loudest over the *aortic valves*, and not at the *apex* of the heart.

5th. That the endocardium covering the mitral valve is much more frequently the seat of inflammatory action, in simple chorea unaccompanied by rheumatism, than either the pericardium, or that portion of the endocardium which covers the aortic valves.

6th. That unless the heart affection be attacked in its very earliest stage, little hope remains of restoring the valve to a healthy condition, inasmuch as at the time the bruit is first heard there must exist a deposit of lymph upon or beneath